Pearson Edexcel

A level Music Technology

Exemplar 9MT0/03
Listening and analysing

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Resources you may want to support your session

9MT0/03 question paper

9MT0/03 mark scheme

Specification pages 34-41

Audio files of the songs

Aims and objectives

Receive feedback on the national performance of candidates in exam 2019 9MT0/03 listening and analysing.

Consider why candidates were successful or unsuccessful in answering questions.

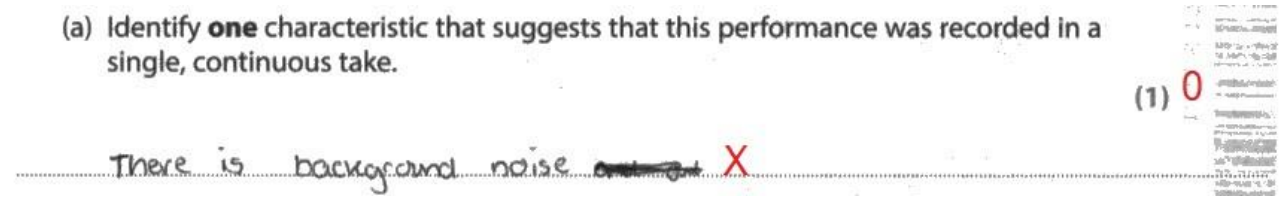
See how the Principal Examiner assessed actual student work.

Read answers to frequently asked questions.

Question 1(a)

Identify one characteristic that suggests that this performance was recorded in a single, continuous take.

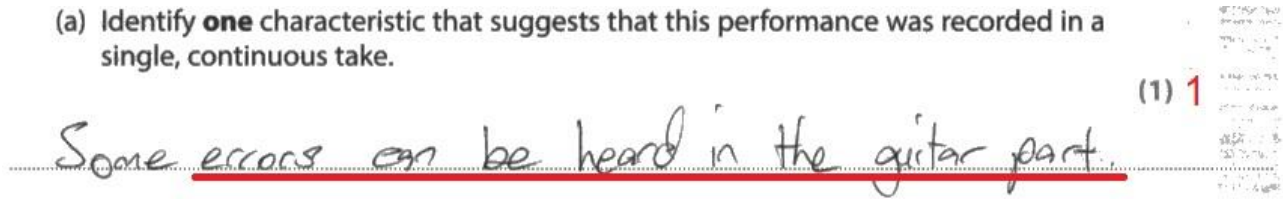
This candidate scored 0 because they commented on recording quality rather than performance. This was a common mistake where candidates had not read the question and used a “stock answer” from a similar question (about old recording quality) in previous exam papers.


(a) Identify **one** characteristic that suggests that this performance was recorded in a single, continuous take.

(1) 0

There is background noise X

This candidate correctly said that there were “mistakes/imperfections” (from the mark scheme) in the performance. The examiner would underline the credit worthy-point.


(a) Identify **one** characteristic that suggests that this performance was recorded in a single, continuous take.

(1) 1

Some errors can be heard in the guitar part.

Question 1(c)

Describe two ways in which a 1940s recording engineer could add reverb to a recording.

The command word is “describe” and the mark tariff is 4 marks. This means 2 marks for each reverb type. The further 2 marks would be for a description of each reverb type.

In each example the red underlines show where the marks were awarded.

This candidate scored 2 marks for correctly identifying “plate” (from mark scheme) and “recording in a hall” (from mark scheme) for a description of natural reverb. There was no description of how a plate works and no identification of “natural reverb” as the type of reverb.

(c) Describe **two** ways in which a 1940s recording engineer could add reverb to a recording.

(4) 2

1 mic up a 'plate reverb' aparatus and have the musician play through it.

2 Record the song in a 'hall'.

Question 1(c)

Describe two ways in which a 1940s recording engineer could add reverb to a recording.

This candidate scored full marks because two reverb types were identified and each was correctly described.

(c) Describe **two** ways in which a 1940s recording engineer could add reverb to a recording.

(4) 4

1 One way is using an echo chamber. A microphone would be placed in a room with a speaker facing the opposite way so it captures the reflections (reverb) of the sound.

2 Another way is capturing the reverb naturally. This could be done by doing the recording in a large room with reflective materials.

Plate was accepted for this question even though it hadn't quite been invented at the time of the recording. Plate still showed knowledge of vintage reverb types and it was only a few years out!

Question 2(d)

Describe EQ has been used to differentiate between the bass guitar and kick drum in the mix between 1:57-2:30. Draw an EQ contour on each of the graphs below to demonstrate how this would have been achieved.

In this question, examiners were looking for a correct differentiation of EQ between the bass guitar and kick drum. In the recording, the bass guitar sounds mid heavy whereas the kick drum sounds more scooped with a full low end and a high mid boost for a clicky beater. Frequency ranges are wide enough to credit any viable answer but exclude unreasonable answers.

Full marks was rare on this question because it was intended to reward very able students.

Question 2(d)

Describe EQ has been used to differentiate between the bass guitar and kick drum in the mix between 1:57-2:30. Draw an EQ contour on each of the graphs below to demonstrate how this would have been achieved.

This candidate correctly differentiated between the two EQs to score full marks.

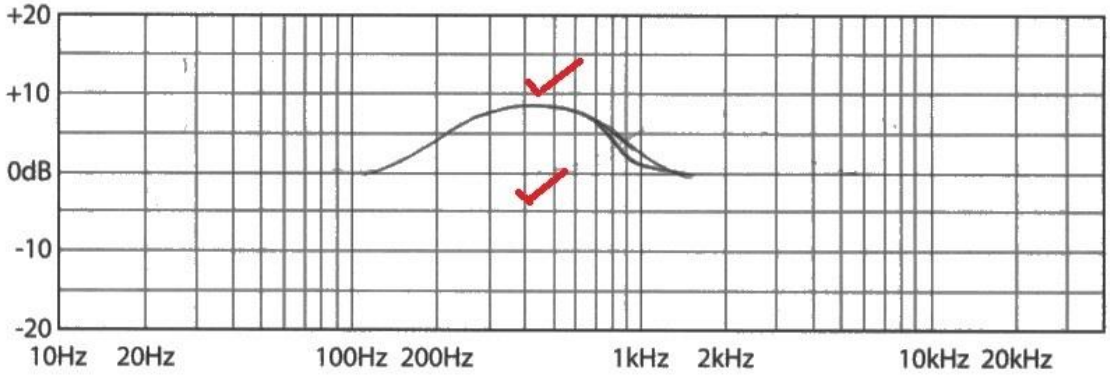
The bass guitar scores two marks because there is a “mid range band boost with centre frequency between 200Hz and 2kHz” (from the mark scheme) and “the mid range band boost covers at least two division of the graph”.

The kick drum scores 1 mark for a “low frequency band boost with centre frequency between 40-100Hz”, their centre frequency being a shade higher than 40Hz, so just in! A further mark is awarded for the “high frequency shelving boost with midpoint of slope between 1-4kHz”, their mid point of slope (as measured in dB vertically) is a shade lower than 4kHz, so just in again! Because the frequencies are both borderline, please note the “working lines” of the examiner. The EQ that the candidate has drawn wouldn’t sound exactly like the recording, but it’s close enough for A level; it’s on the extremes of the acceptable ranges.

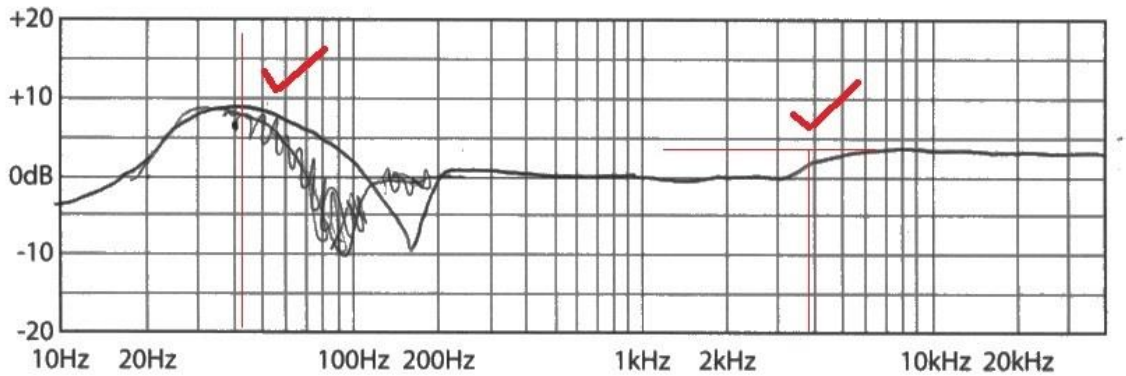
(d) EQ has been used to differentiate between the bass guitar and kick drum in the mix between 1:57-2:30. Draw an EQ contour on each of the graphs below to demonstrate how this would have been achieved.

(4) 4

Bass guitar EQ



Kick drum EQ



Question 2(d)

Describe EQ has been used to differentiate between the bass guitar and kick drum in the mix between 1:57-2:30. Draw an EQ contour on each of the graphs below to demonstrate how this would have been achieved.

This candidate has differentiated between the two EQs but there are some errors.

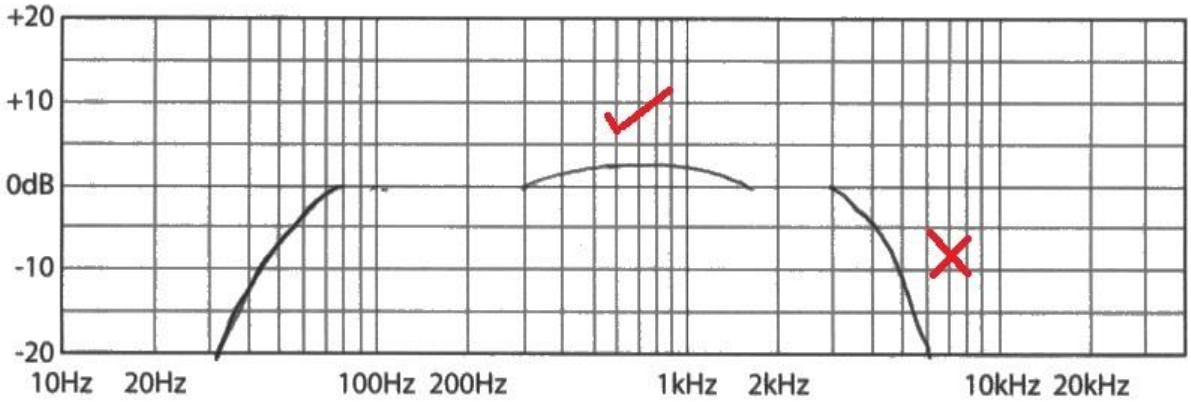
The bass guitar has a band boost for a possible two marks, but there is a high frequency cut that would make the bass guitar sound muffled so a maximum of 1 mark is awarded.

The kick drum has a correct low frequency boost for 1 mark, but no corresponding high mid boost.

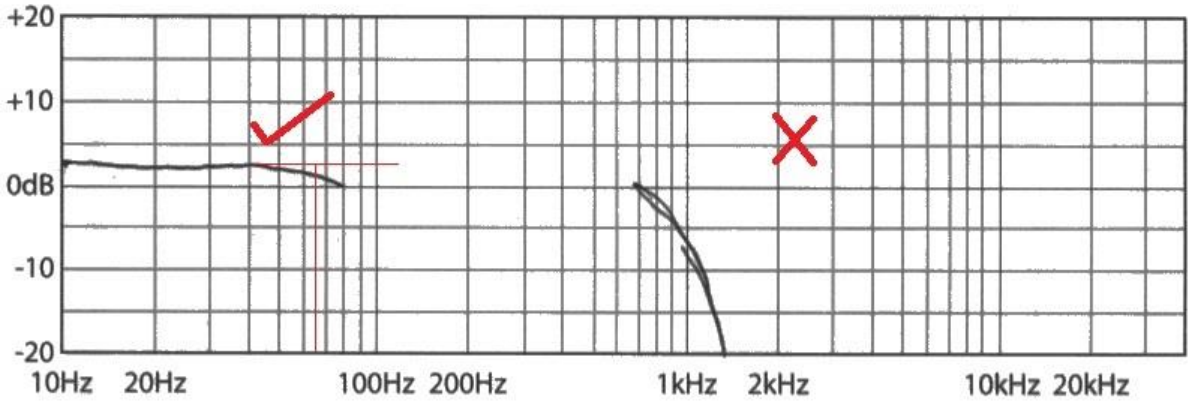
(d) EQ has been used to differentiate between the bass guitar and kick drum in the mix between 1:57-2:30. Draw an EQ contour on each of the graphs below to demonstrate how this would have been achieved.

(4) 2

Bass guitar EQ



Kick drum EQ



Question 5

Compare the production techniques in both versions.

This student (see over page) is worthy of full marks. In the marking the examiner has underlined comments that relate to the indicative content in the mark scheme. In the margin there is a “D” for description which would be AO3, and “E” for evaluation which would be AO4.

This is a list of the corresponding wording in the indicative content mark scheme of the points that the student made in order:

“Very hard panning” AO3

“LCR panning gives a clear separation of instruments” AO4

“Typical of era” AO4

“Compare to the contemporary norm of ‘graduated’ panning across the entire stereo field” AO4

“Sounds disjunct to our ears” AO4 (although the candidate phrased it in terms of the remix being “cohesive”)

“Live” AO3

“Multitrack” AO3

“Tape” AO3

“Tape saturation” AO4

“DAW” AO3

“Uses sampled stems from the original” AO4

“Drum machine” AO3

“Contemporary production techniques commonly found in dance music” AO4

“Increased number of tracks/instruments” AO4

“Little compression” AO3

“Individual tracks are compressed” AO3

“The heavy use of mix compression makes it suitable for playback in a club” AO4

“Uses looping” AO3

“Vocal has delay” AO3

“Siren/LFO synth” AO3

“Small sections from the original vocal are chopped up/looped” AO4

The student has made 11 AO3 descriptions and 10 AO4 evaluations. There are a maximum of 5 AO3 marks available so this would be capped. However there is enough AO4 to still score full marks. This written answer fulfils the level 5 descriptor of being “detailed” and “sophisticated”.

Question 5

SECTION B

Answer both Questions 5 and 6. Write your answers in the spaces provided.

5 Elvis Presley: *A Little Less Conversation* (1968)
Track 5

and

Elvis vs. JXL: *A Little Less Conversation Radio Edit Remix* (2002)
Track 6

Compare the production techniques used in both versions.

(15) 15

D The original uses extensive panning of instruments, e.g. the drums are placed far right in the stereo field whilst the acoustic guitar is far left. This provides clarity through
E seperation of tracks however extensive use of panning is typical
E of its era of production as the recent development of stereo recording led to a lot of experimentation. The remix begins with the guitar panned centre and the drums are placed both left and right of the stereo field. The remix similarly pans tracks for
E stereo spread however it is far less dramatic in terms of panning
E and therefore the music feels more together and cohesive.
The capture methods between the two tracks differs greatly due to the era they were recorded. The original would have
D been recorded completely live or with the vocals recorded after.
This would be achieved by micing all instruments and having them seperated via acoustic Panels. This creates a live and natural
DD feel to the song. The use of a 24 track tape recorder has allowed for a large amount of tracks to be recorded and layered, thickening the texture of the song with trumpets and backing vocals as it progressess. Because the song was recorded onto tape, a

Question 5

E natural tape saturation adds warmth to the song. In contrast, the
D remix is recorded on a DAW and instead of live recording, makes use
ED of sampling the original, and drum machines so feels a lot more artificial
and cold as it was recorded digitally. Digital recording does provide greater
clarity and allow for sampling and synthesis as heard in the song which is typical
E of 2000's dance music. DAW recording also allows for unlimited tracks so
E the remix features extensive layering for a much thicker texture than original.
As the original recording is from the late 60's it involves limited processing,
D which maintains the natural live feel of the song. Subtle compression would have
been used to even out peaks and little reverb to add ambience, retaining a
D natural, live sound. The remix however uses heavy compression on all tracks so it can be
ED as loud as possible, for being played in clubs. It uses looping of drums and other
samples from the original which would be difficult and unconventional to achieve on
D tape. There is heavy use of delay on vocals e.g 0:42 with high feedback and
D heavy use of synthesis modulated creatively e.g warbling effect at 2:10.
E Heavy synthesis and sampling e.g stuttering at 2:22 are typical of dance music
and compliment the energy of the song, such techniques were not possible
in 1968, the original is suited more toward listening for
pleasure.

(Total for Question 5 = 15 marks)

8

P 6 1 0 6 2 A 0 8 1 2

Question 5

Compare the production techniques in both versions.

This student (see over page) scored 8 marks. In the marking the examiner has underlined comments that relate to the indicative content in the mark scheme. In the margin there is a “D” for description which would be AO3, and “E” for evaluation which would be AO4.

This is a list of the corresponding wording in the indicative content mark scheme of the points that the student made in order:

“Live/acoustic instruments” AO3 (the list of instruments)

“Very hard panning” AO3 (the description of panning of each instrument)

“Sampled stems from the original” AO4

“Uses looping” AO3

“Drum machine” AO3

“Vocals have more reverb” AO4 (this is AO4 because it’s a comparison)

“Vocals have delay” AO3 (this is AO3 because it’s not compared to the original version)

“Siren/LFO synth added” AO3

“Pitch-shifting” AO3 (no AO4 credit because the pitch is lower in remix not “pitched up” as the student wrote)

“Chopped vocals offer a repetitive, rhythmic hook during instrumentals” AO4.

“Sub bass/synths added” AO3

The student has made 8 AO3 descriptions and 3 AO4 evaluations. There are a maximum of 5 AO3 marks available so this is capped at 5. With the 3 AO4 evaluations there is a mark total of 8 marks. This written answer is level 3. It “demonstrates clear knowledge and understanding” and some “clear analysis and deconstruction” with some “clear comparisons between the two recordings”. It isn’t level 4 because it lacks “detail”.

This student has used bullet points and a table instead of continuous prose which is acceptable. It would still be possible to score full marks using this format, but in this case there isn’t enough detail.

Question 5

SECTION B

Answer both Questions 5 and 6. Write your answers in the spaces provided.

5 Elvis Presley: *A Little Less Conversation* (1968)
Track 5

and

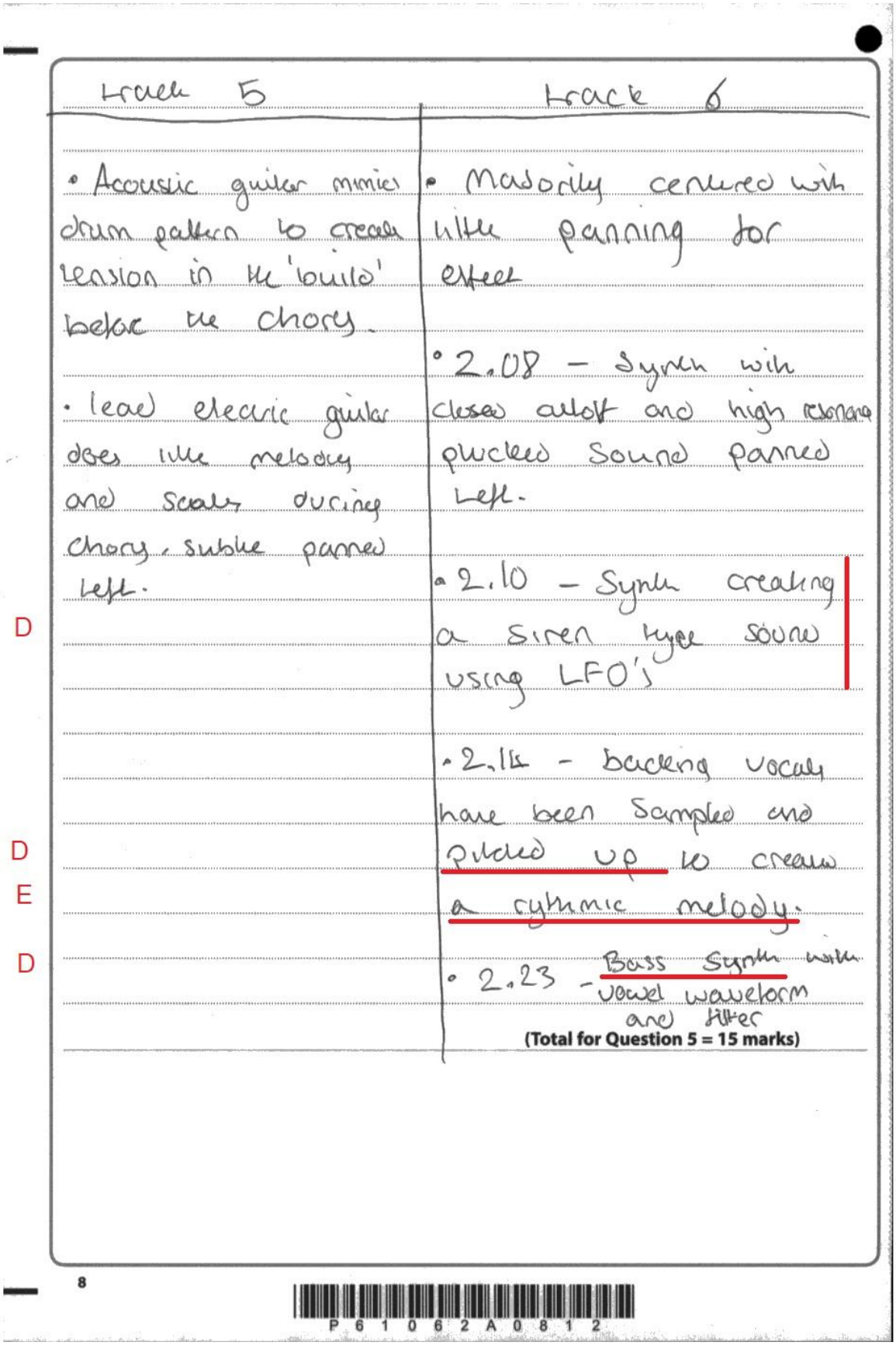
Elvis vs. JXL: *A Little Less Conversation Radio Edit Remix* (2002)
Track 6

Compare the production techniques used in both versions.

(15) 8

	Track 5	Track 6
DDE	• Elec guitar panned Left	• Drums taken from original
D	• Bass panned to right	and looped to keep an
	• Drums panned to right	even loop throughout song
	• vocals centre	• Drum loop supported
	• ~~acoustic guitar Left~~	with electric circle drum
D	• acoustic guitar panned Left	with a slight POP and
	• backing vox centre	a dance snare.
	• Brass mainly panned right	• Guitar sampled and looped
E	• Little reverb on	• Lead vox wet. lots
	lead vox. But lead	of reverb and some
D	vox is mainly dry	delay
	• acoustic drums	• cutoff filter at 45 secs
	• Bass guitar. Eq'd	• backing vox still very
	with a fair amount	similar to original.
	of top end	• 1.40 ~~elect~~ Synthesised
	• acoustic guitar has	brass instrument to thicken
	limited available frequency	low end.

Question 5



Track 5	Track 6
• Acoustic guitar mimics drum pattern to create tension in the 'build' before the chorus.	• Mostly centred with little panning for effect
• lead electric guitar does the melody and scales during chorus, subtle panned left.	• 2.08 – Synth with closed allpass and high resonance plucked sound panned Left.
	• 2.10 – Synth creating a siren type sound using LFO's
	• 2.15 – backing vocals have been sampled and pitched up to create a rythmic melody.
	• 2.23 – Bass Synth with vowel waveform and filter

(Total for Question 5 = 15 marks)

D

D

E

D

8

Question 6

This song was produced in 1984 and makes use of sequencing technology. Evaluate the use of sequencing within the song and the wider impact of the technology has had on music production from the 1980s to the present day.

This student (see over the following pages) scored 14 marks. In the marking the examiner has underlined comments that relate to the indicative content in the mark scheme. In the margin there is a "D" for description which would be AO3, and "E" for evaluation which would be AO4.

This is a list of the corresponding wording in the indicative content mark scheme of the points that the student made in order:

"The DAW was born" AO4

"Sequencing technology made it possible for one person to develop multiple instrumental parts for a song" AO4

"Song composed on the fly" AO4

"Drums sequenced" AO3

"MIDI" AO3

"Parts quantised" AO3

"Tighter" AO4

"Home computers with MIDI, e.g. Atari" AO4

"Rise of home studio" AO4

"MIDI events, e.g. controllers" AO4

"Looping" AO3

"Audio editing in sequencer" AO4

"Allowed those without instrumental skills to make music" AO4

"MIDI meant synthesisers could be easily interconnected…" AO4

The student has made 4 AO3 descriptions and 10 AO4 evaluations. In this question anything linked to the wider context is considered AO4. This student doesn't reach the maximum of either AO3 (5 marks) or AO4 (15 marks) content. With the 4 AO3 descriptions and 10 AO4 evaluations 14 marks are awarded. This written answer is level 5 in terms of the wider context of sequencing, there are "sophisticated and valid connections between the production techniques" and the way that sequenced music sounds and how it's produced. However there is very little commentary about the song "Shout" so is level 1, "limited analysis". Level 4 is a best fit because of the lack of song analysis.

Answers that didn't refer to the song enough were common. If students used subtitles to separate each part of the question, that could guide them to answer more fully about both the song and the wider context.

The first half the second page veers off topic and discusses mixing (effects, compression) rather than sequencing. This was also common in student answers. Text that doesn't answer the question is not credited.

Question 6

6 Tears For Fears: *Shout*
Track 7

1950-63 -
1963-69
1969-96 -
1996 - DAW

This song was produced in 1984 and makes use of sequencing technology. Evaluate the use of sequencing within the song and the wider impact the technology has had on music production from the 1980s to the present day.

(20) 14

The song was produced in 1984 and have used a sequencing
E technology and later what it developed to DAW. Sequencing
E technology in this song could firstly, put many tracks as the
artist want which meant that the producer & artist could arrange
E the music in process of making it, unlike previous time where it had to
be completely arranged before the recording process. Sequencing also had
a huge impact on technology such as quantising. In this song, the
DDD drums & other midi instruments are heavily quantised which means
E they were always strictly on time. Sequencer technology also hugely led
to artist's advantage as any tracks could be added with different
effects and setting as they wanted. In previous years if an effect was
used it usually had an impact on the whole track rather than a single
one. One of the first forms of sequencing technology that was made
E was Atari 2.0, Cubase 3.0 & logic for people to make music.
This has hugely changed the nature of music publishing as
E it gave huge access to people to make music and publish it. Previously
people had to be chosen by a company or agencies, whereas now
people could easily upload music to internet as an MP4 file.
Synthesisers that we recorded in this song can used via DI - which
was very convinient for producers & musicians. In addition through use
E of DAW - panning & modulation became very easy. Producers could just
Click & press where to pan the instruments & tracks via computer

Question 6

D One other huge advantagement that sequencing technology that directly impacted the musicians were use of loop. If one section was recorded, artists could loop the specific part - which meant that no other additional effort was needed other than recording one take that artist liked. In addition, as sequencing technology developed the number of takes + time for musicians became very free & cheap. Musicians could play around & use the sound that they have enjoyed. All the effects could be used in the process of making song, in addition mixing & mastering procedure added by the, for better sound & mixed balanced. Compression was added frequently as well due to musicians aim to maximise the volume without exceeding the clipping. Use of samples became very common, especially in modern music - which could have many different effects added on to create interest such as stuttering effects on

E vocal, chopped samples as well as looped samples. This gave a wider chance for musicians to have different artefact to create music.

Sequencing technology changed the nature of making music as well, which meant that previously musically educated people were common in making songs, however due to development in sequencing

E technology + DAW (Digital Audio Workstation) + people with less musical knowledge had need to make music as well.

E Lastly, once MIDI keyboard was attached to the computer, anyone could make music with different instruments as the development of sequencing technology hugely associated with the development of MIDI, for instance, piano sound, violin sound and other sound could come out of sequencing technology by uses a MIDI keyboard.

10

Question 6

This song was produced in 1984 and makes use of sequencing technology. Evaluate the use of sequencing within the song and the wider impact of the technology has had on music production from the 1980s to the present day.

This student (see over page) scored 5 marks. In the marking the examiner has underlined comments that relate to the indicative content in the mark scheme. In the margin there is a "D" for description which would be AO3, and "E" for evaluation which would be AO4.

This is a list of the corresponding wording in the indicative content mark scheme of the points that the student made in order:

"The digital workstation was born" AO4 (the student has set the DAW in historical context)

"Synth leads sequenced" AO3

"Looping" AO3

"Emphasis taken away from using live instruments" AO4 (along with the previous few sentences about drum kits)

"Eliminating human error" AO4

The student has made 2 AO3 descriptions and 3 AO4 evaluations; 5 marks are awarded. This written answer is borderline level 1 and 2. There are "some connections between the production technology used in the recording and their wider impact" for level 2 however it's almost "limited" because not much is discussed. However, like the previous student, there is very little commentary about the song "Shout" so is level 1, "limited analysis".

Overall this answer is very repetitive and contains very little depth or information. In particular, the final page conclusion repeats the material from page 2 which has already been credited. Also the second half of the second page largely repeats the previous paragraph but more vaguely.

Out of the four long answer exemplars in this pack, this one is the longest but scores the least. It goes to show that detailed concise answers score more than pages of repetitive prose that don't make any clear and pertinent points.

Question 6

6 **Tears For Fears: *Shout***
Track 7

This song was produced in 1984 and makes use of sequencing technology. Evaluate the use of sequencing within the song and the wider impact the technology has had on music production from the 1980s to the present day.

(20) 5

E In 1984 digital ~~synthesis~~ equipment was already quite established, but DAWs hadnt yet arrived into normal music production. ✗

D In this particular track sequencing has been used on lead instrument and synthesizers in order to create D loops and motifs in the track. A lot of sequencing has also been used in the breakdown of the song. However at this point the drum kit is not sequenced but rather recorded live. Seqencing is relatively limited in this song, however it still allows a blend between sequenced sounds and live recordings which expands the creative possibilities for artists and recording engineers.

Since the 1980s, sequencing technology has improved massively thanks to the release of digital audio workstations in the 1990s. The advance in the technology has allowed a wider use of the technology, allowing even drum kits to be sequenced. This is a very powerful tool because in the present day, less and less live instruments

Question 6

E

are needed and less live recording is needed.
One of the positive aspects of sequencing is that
it allows for editing and changing in post
E production, and also eliminates human error.
As well as this, it is much more cost effective
in the present day. This means that sequencing
technology has grown to become more affordable
since the 1980s until today, due to technological
advancements. This means that it is much more
accessible by amateur or smaller musicians and
thus has become a staple of modern music
production because everyone can use it.

However, some of the downsides it places on modern
music production is that it requires less talent and
musicality to produce, which leads to a lot of manufactured
music in the industry and a lot of over
saturation. Similarly, the more popular that sequencing
becomes, the more it will be used in songs.
In the 1980s, sequencing was not as accessible or
as understood, so it is very experimental and
innovative for this song to use sequencing. However,
in the present day it is almost cliche to use
sequencing and therefore does not have the same
impact on the audience than it would in the
1980s.

10

Question 6

Overall, we can conclude that sequencing in this song shows the potential of the technology, and we can see the impact it has had along the years is that it has made music production more accessible and more technology based, moving away from orchestra and live recording, thus making music production more accessible to a wide audience, however its development has also been aided by the rise of DAW and the overall improvement of technology in the music industry.

(Total for Question 6 = 20 marks)

TOTAL FOR SECTION B = 35 MARKS
TOTAL FOR PAPER = 75 MARKS

Frequency Asked Questions

How are unexpected answers assessed?

During pre-standardisation (before the marking begins), the Principal Examiner would look through about 50 student answers, maybe more, of each question to test whether the mark scheme covers all reasonable answers. The mark scheme is adapted to include all reasonable answers that students write. A lot of the mark scheme is written in "student speak" so it's easier to apply by the examiners. If an examiner still finds an unexpected correct answer, this would be referred to the Principal Examiner for consideration. As we saw in question 1(c), examiners sometimes accept reasonable, yet slightly incorrect answers.

Do candidates need to fill the answer space?

It states on the front of the exam paper, "There may be more space than you need." The answer spaces have to be big enough to contain big handwriting, as well as crossed out and replaced answers. Therefore it is most likely in all questions that students won't fill the answer space. As we saw with the final exemplar, writing a lot and filling the space doesn't necessarily lead to a high mark.

Is this paper electronically marked?

Yes. This paper is electronically marked. The exam paper is scanned electronically. Then it's divided into "clips" which is usually just one question. All of the exemplars in this pack are clips; this is exactly what the examiner would see. Examiners will use software to mark many of these clips of the same question, e.g. an examiner would mark 50 question 1(a). Therefore an examiner would never see a whole candidate so the marking is completely anonymised. Multiple choice answers are marked electronically which is why it's important to follow the crossing instructions.

Is it important to write in the answer space?

Yes. Because this paper is cut into clips, examiners won't see answers not written in the answer space. If a candidate needs more space than the dotty lines provided, they must request an extra sheet so the marking software knows to show the examiner the extra sheet too.

In long answer questions, must students write in prose?

No. Bullet points, diagrams and tables are perfectly acceptable. The second exemplar for question 5 used a table/bullet point arrangement.

In long answer questions, are subheadings a good idea?

Yes. It would help the student structure their answer and avoid repetitive content like the final question 6 exemplar. The indicative content in the mark scheme is divided up with subheadings to help examiners navigate; so should a good student answer.

We don't have a CD player. Is the audio available as a download?

Yes. Details are in the Administrative Support Guide.